AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (Currently Amended) Traction chain for an automobile vehicle, comprising:

- a wheel support which carries a rotating hub designed to receive a drive wheel and having a rotation axis for the [[said]] drive wheel,
- a rotating toothed wheel having a rotation axis the same as that of the [[said]] drive wheel, the toothed wheel meshing directly with the hub, and
- an arrangement comprising at least two gear-wheels which are permanently meshed with the [[said]] toothed wheel, ~~comprising~~ an input shaft designed to be coupled with a shaft of an electric motor, and ~~comprising~~ a gear ratio change ~~mechanism with a neutral position between gear ratios, the said mechanism comprising direct engagement between the input shaft and one of the gear-wheels, the said mechanism comprising, between the input shaft and the other gear-wheel, at least one other mechanical transmission path with a reduction ratio different from a gear ratio of the direct engagement~~ shifter mechanism shiftable between:

a first driving position in which the shifter mechanism directly connects the input shaft with one of the gear-wheels for rotation therewith about a common axis,

a second driving position in which the shifter mechanism indirectly connects the input shaft with another gear-wheel through a mechanical transmission path establishing a gear reduction ratio different from a gear ratio established by the direct coaxial connection, and

a neutral non-driving position.

2. (Currently Amended) Traction chain according to Claim 1, in which the gear ratio change shifter mechanism comprises a dog clutch ~~which enables one or other of the gear ratios to be selected~~ slidable along a common axis of rotation of the input shaft and the one gear wheel.

3. (Currently Amended) Traction chain according to Claim [[1]] 2, in which in the ~~said other mechanical transmission path, the dog clutch moves the toothed wheel~~ other driving state the dog clutch rotates the other gear-wheel via an intermediate gear-wheel which ~~enables~~ causes the rotation speed to be inverted.

4. (Currently Amended) Traction chain according to Claim [[1]] 2, in which in the ~~said other mechanical transmission path~~ one driving state, the dog clutch moves the ~~wheel~~ one gear-wheel at a 1:1 ratio directly without any intermediate gear-wheel.

5. (Currently Amended) Traction chain according to Claim 1, [[in]] which [[it]] has no friction clutch.

6. (Currently Amended) Traction chain according to Claim 1, in which [[it has]] the gear ratio shifter mechanism is shiftable between only two gear ratios.

7. (Currently Amended) Traction chain according to Claim 1, ~~in~~ which ~~it~~ comprises an electric synchronous motor, ~~the said motor being of the synchronous, self-adjusting type, the motor~~ comprising having at least one integrated rotor position sensor used to control the motor.

8. (Currently Amended) Traction chain according to Claim 7, in which the only sensors used to determine the wheel rotation speed are the [[said]] position sensor integrated in the motor and a sensor aggregate associated with the gear ratio change mechanism.

9. (Canceled)

10. (Currently Amended) Process for controlling gear ratio changes according to Claim [[9]] 18, for a vehicle with at least four drive wheels on two axles, [[vehicle]] in which at least one sensor wheel is located on one of the axles, the [[maneuvered]] wheels [[being]] on the other axle constituting maneuvered wheels during the initial phase, and the location of the ~~"sensor" and "maneuvered"~~ sensor and maneuvered wheels is inverted during the subsequent phase.

11. (Currently Amended) Process according to ~~either of Claims 9~~ Claim 18, in which the gear ratio change procedure is blocked in the event of braking more violent than a predetermined threshold.

12. (Currently Amended) Process according to Claim [[9]] 18 in which, during the gear ratio change procedure, locking or skidding of the sensor wheel is detected ~~and, as the "vehicle speed" information, the last datum calculated which is deemed reliable is used~~.

13. (Canceled)

14. (Original) Process according to Claim 10 which uses two sensor wheels on an axle, in which during the gear ratio change procedure, locking or skidding of one sensor wheel is detected and the speed information is worked out from the other wheel on the sensor axle.

15. (Currently Amended) Process according to Claim 10 which uses two sensor wheels on an axle, in which during the gear ratio change procedure the locking or skidding of the two sensor wheels is detected ~~and, as the "vehicle speed" information, the last datum calculated which is deemed reliable is used~~.

16. (Canceled)

17. (New) Traction chain for an automobile vehicle, comprising:

- a wheel support which carries a rotating hub designed to receive a drive wheel and having a rotation axis for the drive wheel,
- a rotating toothed wheel having a rotation axis the same as that of the drive wheel, the toothed wheel meshing directly with the hub,
- a synchronous, self-adjusting electric motor comprising at least one integrated rotor position sensor used to control the motor, and
- an arrangement comprising at least two gear-wheels permanently meshed with the said toothed wheel, an input shaft coupled with a shaft of the electric motor, and a gear ratio change mechanism with a neutral position between gear ratios, the mechanism selectively producing engagement between the input shaft and one or the other of the gear-wheels, the said mechanism comprising, between the input shaft and the other gear-wheel, at least one other mechanical transmission path with a reduction ratio different from a gear ratio of the engagement between the input shat and the one-gear wheel,

- wherein the only sensors used to determine the wheel rotation speed are the position sensors integrated in the motor and a sensor aggregate associated with the gear ratio change mechanism.

18. (New) Process for controlling gear ratio changes in a vehicle having at least two drive gear wheels each equipped with a synchronous, self-adjusting electric motor having at least one integrated rotor position sensor used to control the motor, wherein the gear ratio changes at the two drive wheels are offset in time: in an initial phase, a gear ratio change is effected in one of the drive wheels constituting a maneuvered wheel, the vehicle speed being calculated by the traction electronics from information about the traction motor speed and the currently engaged gear ratio at the other drive wheel constituting a sensor wheel, and then, in a subsequent phase, a gear ratio change is effected in said other wheel.